CHAPTER ELEVEN DISCRETE/RECURRING EVENT AT A PERMANENT VENUE



Figure 11-1 Discrete/Recurring Event at a Permanent Venue: Qualcomm Stadium in San Diego, CA

PURPOSE & & W

In order to assist the user in planning for a particular planned special event, this chapter describes an advance planning and travel management process and considerations specific to a discrete/recurring event at a permanent venue. It summarizes recommended policies, guidelines, procedures, and resource applications that were previously discussed in the first ten chapters of this technical reference. This chapter presents these guidelines and procedures in tables, flowcharts, and checklists that can be followed to help guide the user through all the

stages of a planned special event of this category for a particular locale. Although Chapter 3 presents all the steps necessary to manage travel for a planned special event, this chapter provides a roadmap to help guide the user through all five phases of managing travel for planned special events, identifying issues, analysis, and products applicable to discrete/recurring events at a permanent venue. To further guide readers, this chapter specifies references to data, special considerations, and best practices for this event category.

INTRODUCTION 🗽 🌡 🐠

In order to guide the user, this chapter addresses four key topics, corresponding to five phases of managing travel for planned special events, including: (1) event operations planning, (2) implementation and dayof-event activities, (3) post-event activities, and (4) program planning. In planning for all planned special events in a region, the final section on program planning highlights issues to consider that evolve from and/or pertain to discrete/recurring events at a permanent venue. By following each one of the steps and procedures, the user will have identified and covered all the significant aspects that are necessary to result in successful management of travel for a planned special event with characteristics specific to a discrete/recurring event at a permanent venue.

A discrete/recurring event at a permanent venue occurs on a regular basis at a site zoned and designed specifically to accommodate planned special events. Table 11-1 indicates different types of planned special events classified as a discrete/recurring event at a permanent venue. This category includes events that occur in urban and metropolitan areas, and the rural event category includes discrete/recurring events at a permanent venue that take place in rural areas. Table 11-2 lists key characteristics of a discrete/recurring event at a permanent venue.

Table 11-1
Types of Discrete/Recurring Events at a
Permanent Venue

EVENT TYPE

- Sporting and concert events at stadiums and arenas
- Concert events at amphitheaters

Table 11-2

Distinguishing Operating Characteristics of a Discrete/Recurring Event at a Permanent Venue

CHARACTERISTIC

- Specific starting and predictable ending times
- Known venue capacity
- Advance ticket sales
- Weekday event occurrences

Special Considerations

In light of the characteristics of a discrete/recurring event at a permanent venue, special considerations when planning such an event include:

- Permanent venues located in urban areas usually have exclusive off-street parking to accommodate capacity events, and good access exists between venue parking areas and freeway/arterial corridor traffic flow routes serving the venue.
- In metropolitan areas, permanent venues often feature high-capacity connections (e.g., transit) to the transportation system serving the region.
- Parking areas at many permanent venues exist immediately adjacent to the venue, creating a more self-contained site traffic circulation and pedestrian access environment similar to other major, permanent traffic generators (e.g., airports and regional shopping centers).
- These events generate high peak arrival rates because of event patrons': (1) urgency to arrive at the venue by a specific start time and (2) possession of a reserved seat ticket that does not require early arrival.
- Special events that have general admission seating or permit tailgating have lower, yet pronounced, peak arrival rates
- Discrete/recurring events at a permanent venue end abruptly, thus creating high

peak pedestrian and traffic departure rates.

- The travel demand rate profile, over time, represents a distinguishing characteristic that warrants special consideration during advanced planning and dayof-event travel management.
- Event characteristics, such as known venue capacity and advance ticket sales, afford practitioners the opportunity to perform travel demand forecasts with greater precision and accuracy.
- Discrete/recurring events at a permanent venue allow the collection of transferable historical data that improves predictability in feasibility study traffic and parking analyses for future events held at a particular venue.
- Experience gained from each planned special event can be used to further improve the identification and mitigation of roadway capacity deficiencies.
- Weekday events place a high priority on prediction and stakeholder preparation because of potential impacts on commuter traffic and transit operations.

EVENT OPERATIONS PLANNING

The level of stakeholder effort required under the event operations planning phase for a discrete/recurring event at a permanent venue depends on whether a venue traffic management plan already exists. The event planning team focuses either on developing a new plan or modifying an existing traffic management plan designed and implemented for past events at the subject venue. In the latter case, the event planning team should conduct a review of past, pertinent feasibility studies for each proposed event. This will help to identify special transportation characteristics of each event and identify similarities to previously held events.

Attendance, time of occurrence, previous lessons learned, and other special circumstances should be considered during this review.

Figure 11-2 presents 31 steps in the event operations planning process for all planned special events. The flowchart covers development and integration of the phase's three primary products: feasibility study, traffic management plan, and travel demand management initiatives. Table 11-3 complements the flowchart by providing step-bystep guidance on issues and recommended analyses for a discrete/recurring event at a permanent venue. The table also presents reference information contained in this handbook that specific disis to crete/recurring events at a permanent venue. While all of the major handbook topics under event operations planning apply to a discrete/recurring event at a permanent venue, Table 11-3 indicates data, planning considerations, and agency example applications (e.g., via narratives or photos) within the context of this event category. In turn, practitioners can use example applications presented for a discrete/recurring event at a permanent venue to manage travel for other categories of planned special events.

It is important for the user to note that the planning process described herein applies to a single special event occurrence only. Feasibility study results and traffic management plan specifications vary for: (1) recurring events of the same type (e.g., all home games for a specific sports team) and (2) capacity events of different types held at the same venue (e.g., a sold-out sporting event versus sold-out concert at the same stadium). In the former case, practitioners should conduct an iterative event operations planning process in order to develop traffic

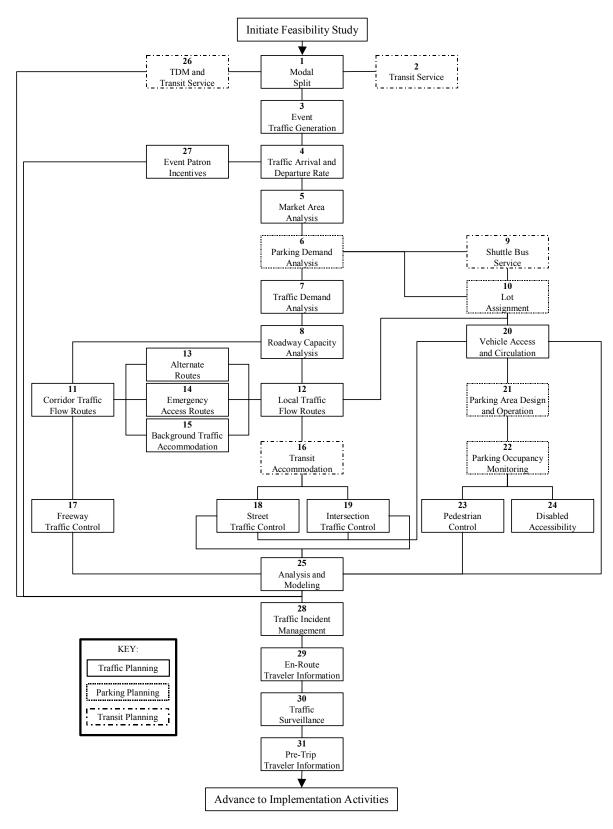


Figure 11-2
Event Operations Planning Process Flowchart

ADVANCE PLANNING

Table 11-3
Event Operations Planning Steps
Discrete/Recurring Event at a Permanent Venue

	Discrete/Recurring Event at a Permanent Venue			
	EP	EVENT-SPECIFIC ISSUES	EVENT-SPECIFIC REFERENCE INFORMAT	
NO.	PAGE		TOPIC	PAGE
1	5-20	Potential high level of express/charter bus service for sporting events. Review of historical transit data.	Data: Percentage of walking trips for oncampus college football games. Data: Example modal split for various perma-	5-21
			nent venues; Table 5-12.	5-21
2	7-9	Impact of weekday events on non-attendee	• Example: Express bus services.	7-11
		transit users.	• Example: Charter bus service.	7-13
3	5-21	Variation in vehicle occupancy by event type, event day/time, and venue location.	Data: Vehicle occupancy factor; Table 5-14.	5-23
4	5-22	Change in peak arrival rate by event type and day/time.	Data: Traffic arrival rate characteristics; Table 5-15.	5-24
			Special consideration: Traffic operations during event patron departure.	5-23
		 Use of origin location analysis. Larger market area for major concert and	Data: Estimate of non-home based trips for a downtown venue.	5-26
5	5-25	sporting events. • Attraction of non-home based trips for week-	Special consideration: Recommended market area analysis methodology and considerations.	5-26
		day events.	Example: Appendix E – Regional directional distribution.	5-25
6	5-27	Very low turnover during event.		
7	5-29			
8	5-30	Analysis of peak arrival and departure periods.		
9	6-32	Design of service to expand and contract (e.g., number of buses operating) based on event pa- tron arrival/departure rates throughout the day-	Special consideration: Shuttle bus service design.	6-33
		of-event.	Special consideration: Shuttle bus service cost.	6-36
10	6-13	Significant media parking requirement for major sporting events.		
11	6-38		• Example: Plan showing target points; Figure 6-30.	6-39
			Example: Appendix I – Traffic flow maps. Example: Appendix I – Traffic flow maps.	6-47
12	6-38		• <i>Example:</i> Plan showing multiple local traffic flow routes; Figure 6-31.	6-39
			Example: Appendix I – Traffic flow maps.	6-47
13	6-40			
14	6-41			
15	6-43	Key consideration for downtown venues and venues adjacent to residential and business ar- eas.		
16	6-45			
			Example: Temporary elimination of freeway weaving area; Figure 6-39.	6-53
17	6-49		• Example: Prohibition of late freeway diverge; Figure 6-40.	6-53
1 /			Example: Remote traffic surveillance and management; Figure 6-41.	6-53
			Example: Appendix K – Traffic control plans and maps.	6-59
18	6-51		Example: Contraflow operation during event traffic egress; Figure 6-44.	6-54
10	0-31		Example: Appendix K – Traffic control plans and maps.	6-59
19	6-57		Example: Elimination of competing intersection traffic flow; Figure 6-50.	6-57
			Example: Achieving intersection turning movement lane balance; Figure 6-51.	6-57
			• Example: Roadblock of ingress route to facilitate egress; Figure 6-52.	6-58
<u> </u>			• Example: Intersection advance signing; Figure 6-53.	6-58

STEP		EVENT ODECIEIC ISSUES	EVENT-SPECIFIC REFERENCE INFORMATION	
NO.	PAGE	EVENT-SPECIFIC ISSUES	TOPIC	PAGE
			• Example: Appendix J – Operation of central-	6-59
			 ized traffic signal system. Example: Appendix K – Traffic control plans 	
			and maps.	6-59
	6-16	 Vehicle cruising after event to pick-up event patrons. 	Example: En-route information dissemination on site access and parking; Figure 6-6.	6-14
		•	Example: Temporary parking area identification landmark; Figure 6-8.	6-15
20			Example: Implementation of lane channelization on a parking area access road; Figure 6-10.	6-18
			Example: Strategy for eliminating taxi/limo cruising at the end of an event.	6-19
			• Example: Appendix H – Site and parking maps; Figures 6-16 and 6-17.	6-25, 6-27
21	6-20	Key consideration for event ingress operations.	 Special consideration: Permanent venue gate and queue storage lanes; Figure 6-13. 	6-21
22	6-23			
23	6-28	Pedestrian overcrowding near venue.	 Special consideration: Pedestrian arrival and departure rates. 	6-27
23	0-28		Example: Pedestrian traffic monitoring via closed-circuit television; Figure 6-21.	6-29
24	6-32			
25	6-9	 Analysis of peak ingress and egress travel periods. 		
26	7-2 to 7-14	 High applicability of HOV incentives and express/charter bus service to this event cate- gory. 	Example: High occupancy vehicle incentives; Figure 7-3.	7-3, 7-5
	, 1.	C y	Example: Transit service marketing.	7-13
27	7-6	Particularly applicable to managing event arrival and departure rate.	Special consideration: Recommended event patron incentives.	7-6
21		-	• Example: Survey on event patron incentives; Figure 7-4.	7-7
			• Example: Public information safety campaign.	6-73
28	6-72		Example: Highway advisory radio traveler safety message; Figure 6-61.	6-74
29	6-61		Example: Permanent changeable message sign over stadium access road; Figure 6-56.	6-64
30	6-70			
	7-14	 Dissemination of traveler information through event and venue websites. 	Example: Appendix L – Public agency and event-specific websites.	7-17
		 Dissemination of transportation guide with advance ticket mailings. 	• Example: Telephone information systems; Figure 7-9.	7-19
31		_	Example: Public information campaign.	7-19
			Example: Appendix M - Venue transportation guides.	7-21
			• Example: Television travel report; Figure 7-12.	7-22

management plans for a range of future event scenarios, varying by characteristics such as attendance and time of occurrence. Example scenarios include expected highattendance events because of special promotions or circumstances and weeknight football games versus traditional weekend games. In the latter case, different event types have dissimilar event operation characteristics such as market area, audience accommodation, and time of occurrence. Available transportation services and stakeholder resources may vary from one capacity event to another. For instance, an exclu-

sive express bus service between area parkand-ride lots and a stadium may operate for Sunday football games but not for a concert at the same facility because of resource constraints.

The flowchart in Figure 11-2 represents a suggested order of event operations planning activities. However, as noted below, the event planning team can modify activities to create a dynamic and more effective planning process tailored to the scope of a specific planned special event:

- Based on lessons learned from past special events at a particular permanent venue, stakeholders may program new infrastructure or adopt new policies (e.g., parking restrictions) early in the event operations planning process.
- Links between process steps are twoway as stakeholders evaluate alternative strategies and/or integrate traffic management plan components.
- The event planning team can develop different traffic management plan components concurrently.

The event operations planning process references information and concepts contained in the advance planning section of this handbook, and it directs the user to recommended guidelines, procedures, strategies, and resource applications for managing travel for a specific planned special event. When following the process, practitioners should review:

Important advance planning considerations and external factors, summarized in Chapter 5, that influence planning activities. For instance, under risk assessment, scenarios relating to fan celebrations and excessive overcrowding may warrant consideration if planning for a major sporting or concert event.

 Traffic management plan components in Chapter 6 that provide an overview of various principles driving plan development in addition to a contingency plan checklist.

IMPLEMENTATION AND DAY-OF-EVENT ACTIVITIES & ***

The traffic management team that manages travel for a discrete/recurring event at a permanent venue usually has familiarity with traffic patterns and potential flow breakdown points in the vicinity of the site, primarily based on their past experience on previously held special events at the same venue. Hence, stakeholder development of implementation plan details focus on transportation operation successes and lessons learned for previous, similar events at the subject venue. Special events regularly occur at stadium, arena, and amphitheater venues. Involved traffic operations and law enforcement personnel, for instance, maintain a level of preparedness akin to that of traffic incident responders.

Table 11-4 presents a checklist implementation and day-of-event activities for stakeholders to consider regarding any discrete/recurring event at a permanent venue. As indicated in the table, the event planning team must determine, based on various event operations characteristics (e.g., event type, event location, event time of occurrence, attendance, market area, etc.) and other external factors, what unique set of activities apply in handling a specific special event. The table facilitates fast access to handbook sections providing detailed guidance, including recommended strategies, protocol, and resource applications, required by users to plan and execute these activities.

Table 11-4
Checklist of Implementation and Day-of-Event Activities for Discrete/Recurring Events at a
Permanent Venue

HANDBOOK PAGE	ACTION	APPLIES
8-2	Develop an implementation plan.	
8-6	Conduct a stakeholder simulation exercise(s).	
8-8	Test equipment resources slated for use on the day-of-event.	
8-9	Recruit and train volunteers to fulfill personnel resource needs.	
9-2	Implement a traffic management team management process.	
9-4	Designate a multi-agency command post.	
9-6	• Conduct traffic management plan evaluation(s) during the day-of-event.	
9-6	Establish protocol for traffic management team officials to consider and implement changes to the traffic management plan to accommodate real-time traffic conditions.	
9-8	Establish interagency communication protocol.	
9-9	Review communication equipment compatibility.	
9-10	Use the media to communicate with event patrons and other transportation users.	
9-12	Perform traffic monitoring on the day-of-event.	

Some distinguishing considerations of this event category during the day-of-event activities phase include:

- Because of the numerous planned special events held annually at a permanent venue, stakeholders typically have a set location for an on-site command post. For larger venues in metropolitan areas, the command post may reside inside the venue, contain permanently installed equipment (e.g., computer and communication connections, video monitors, etc.), and function as a satellite transportation management center.
- Interagency communication structure and protocol is generally well established and understood by all participating personnel.
- Traffic advisory services often monitor special events at permanent venues and disseminate traveler information accord-

- ingly, and the media provides significant coverage of major sporting events that usually includes traveler information and transportation system operations monitoring. The traffic management team may interact with these information providers on the day-of-event.
- The collection and evaluation of transportation system performance data proves valuable in guiding decision-making for future discrete/recurring events at a permanent venue. Stakeholders can archive raw data for use in future feasibility studies, and various evaluation measures can identify specific areas that require improvement for future, similar events at the subject venue. The traffic management team must exercise great care in collecting performance evaluation data in order to ensure data quality and consistency.



Since a discrete/recurring event at a permanent venue has the benefit of numerous events having been held at the site, it is usually not necessary to conduct all post-event activities normally required for other event categories. Table 11-5 presents a checklist of post-event activities applicable to any discrete/recurring event at a permanent venue. Certain special events of this category (e.g., new event type at venue, statewide/national market area, etc.) that present a challenging and potentially recurring travel management scenario for stakeholders warrant most, if not all, activities listed in the table. The post-event activities section of this handbook provides detailed information on common techniques, special considerations, and recommended protocol that facilitate the activities listed in Table 11-5.

Some distinguishing considerations of this event category during the post-event activities phase include:

- Post-event debriefings represent a common and recommended stakeholder activity regarding discrete/recurring events at a permanent venue.
 - On a regional level, such meetings may coincide with a regular traffic incident management team meeting.
 - With major discrete/recurring events (e.g., capacity or near-capacity) often regularly occurring at permanent venues, the event planning team and traffic management team may use a post-event debriefing as a basis to update a traffic management plan and travel demand management initiatives for future planned special events at the venue.

Table 11-5
Checklist of Post-Event Activities for Discrete/Recurring Events at a Permanent Venue

HANDBOOK PAGE	ACTION	APPLIES
10-2	 Review measures of effectiveness identified in event operations planning phase. 	
10-3	Compile agency measures of effectiveness.	
9-14	Compile performance evaluation data.	
10-5	Conduct stakeholder participant debriefing.	
10-6	Conduct event patron survey.	
10-7	Conduct public survey.	
10-7	Conduct a post-event debriefing meeting.	
10-10	Prepare a post-event report.	

- Public surveys warrant strong consideration for special events under this category as event performance evaluation data fails to assess all community impacts.
 - event occurrence, stakeholders may conduct a public survey: (1) after the first of a series of recurring special events (e.g., sports season), (2) after receiving negative feedback through community interest stakeholders, or (3) after a specified period of time (e.g., annually or every few years) for all events held at a particular permanent venue.
 - Survey results alert special event stakeholders of impacts to affected residents and businesses, in addition to non-attendee transportation system users, that may continue to occur with each successive major special event at a particular permanent venue. As a result, stakeholders can develop and implement appropriate strategies (e.g., enforcement, etc.) to mitigate the identified impact(s) for future planned special events. Traffic management team efforts also would include monitoring known community impacts on the future day-of-event followed by a postevent evaluation.

PROGRAM PLANNING



Program planning activities involve the development of policies, programs, and initiatives that facilitate improved planning and management of travel for future planned special events. Program planning activities for all planned special events in a region have a high level of applicability to discrete/recurring events at a permanent venue.

Stakeholders that have a consistent role in managing travel for planned special events at a particular permanent venue can address recurring needs and improve the planning process for future events through various regional planned special event program initiatives.

Table 11-6 summarizes program planning activities for discrete/recurring events at a permanent venue.

Some distinguishing considerations of this event category during the program planning phase include:

- The fixed location of major planned special event venues allows for the easy identification of stakeholder representatives involved in regular planning and day-of-event travel management for special events at these venues. Under a regional planned special events program framework, these representatives collaborate as a task force, working to: (1) strengthen interagency coordination for future special events, (2) identify needs relative to minimizing community impacts and improving transportation system operations during venue events. The latter involves proposing new policies, regulations, and infrastructure deployments to support future eventspecific traffic management plans and travel demand management initiatives.
- Permanent infrastructure deployments prove cost-effective at permanent venues hosting numerous planned special events or multiple major events in a calendar year. As indicated in Table 11-6, infrastructure deployment also includes new transportation services designed to increase transportation system capacity during a planned special event. For instance, a transit agency may design and

- market an express bus service for an entire sports season.
- The occurrence of major discrete/recurring events at a permanent venue (e.g., roving sports championship events, auto races, other capacity events, etc.) often serve as a platform for stakeholders to assess new services and infrastructure proposed for a single, major special event in the context of supporting: (1) all special planned special events

in a region and (2) day-to-day transportation system operations. The fore-knowledge of planned special events allow stakeholders to work with transportation agency administrators in order to incorporate pertinent planned special events initiatives in agency budgets and/or transportation improvement programs.

Table 11-6
Program Planning Activities for Discrete/Recurring Events at a Permanent Venue

PRODUCT	TOPIC	PAGE NO.
Institutional	Creation of a regional transportation committee on planned special events	2-15
frameworks	(e.g., oversight team).	4-2
		5-3
	Creation of a transportation operations task force for a specific permanent venue.	5-3
	 Development of a joint operations policy. 	5-15
Policies and	Traffic and parking restrictions.	5-10
regulations	Public-private towing agreements.	5-16
	Public information safety campaign.	6-73
	High occupancy vehicle incentives.	7-3
Infrastructure	Advanced parking management system.	6-15
deployment	Electronic fee collection system.	6-22
	Planned alternate route for diverting background traffic around a venue.	6-40
	Portable traffic management system.	6-56
	Express, charter, or shuttle bus service.	6-32
		7-11
		7-12
	Telephone information systems.	7-17
	Kiosks.	7-21

THIS PAGE LEFT BLANK